Macquarie University ICT Innovation Centre and others talk classroom technology

John Willis, MICTIT, Sydney NSW, provides specialist ICT and teaching support to Primary and High School teachers.

"Introducing Interactive Whiteboards (IWBs) opens up a plethora of new learning techniques for the teacher and students to explore. The Internet and other multimedia resources also become immediately available as an editable resource. Sharing can occur! Part of this sharing can be the presentation of group work including podcasts, photo stories and material generated in the IWB workspace.

Because the software offers an unstructured or amorphous page (workspace) on which to work, students are able to include and easily re-order all types of media as their ideas progress and their thinking changes. Text in text boxes, images, video and other multimedia, hypertext links, breadcrumbs and screen grabs can all be incorporated. Students can also add their own reflections and the meaning it has for them. *The workspace acts as an electronic portfolio for the student, the group, the teacher and the class.* Each of the processes: capture, collect, create, organise, display, present, replay, and reflect are supported by the system in an integrated way.

The adoption of such a system is easy especially when the initial tasks are relatively simple and the products of the tasks easily attainable. Students quickly appreciate that their initial learning in a topic can be quite untidy and that their record can be easily added to and improved.

For the teacher there is an added bonus. The software can show how their thinking occurs and how ideas develop. The product can be exported as a video file, Shockwave file, HTML for the web or as a PDF file for reference and printing. The workspace software can be downloaded free by the students at home so they can add to their work later.

In some schools, particularly primary schools, a majority of the classrooms have been equipped with permanent interactive whiteboards (IWBs) and the teachers and students are really benefiting from their use. In my current school (Cherrybrook, High School, NSW) there are only four fixed IWBs that could be shared between 120 teachers. In such circumstances, it simply does not make sense to try to schedule a room swap or to dedicate any time or energy towards developing material for use with an IWB.

This is the reality in many schools. That is why portability, or the ability to take the eBeam Pod to any room and comfortably and quickly set up an interactive whiteboard, makes it an efficient and effective teaching and learning tool.

The eBeam Portable IWB system changes things as it can operate on any classroom whiteboard. A majority of classrooms have a perfectly good and well placed passive whiteboard. Why not make this passive whiteboard interactive? Why not avoid the need for an additional whiteboard and the high associated cost?

The eBeam Pod and Pen accessories are small enough to be stored in a data projector or laptop bag. We have found that by using two students as monitors, every lesson can have an IWB functioning in seconds with no added effort or constraint being placed on the teacher. It works because the 10 second rule is not broken ".... If something takes longer than 10 seconds to set up then teachers will put off adoption".

The TurningPoint Student Response System (SRS) also adds to the teaching and learning effectiveness within the classroom. While we are about to begin designing and exploring activities based on this system, its power appears obvious. It can be run with a floating toolbar (or PowerPoint) to vote using eBeam or other IWB workspace platforms. Whole-class surveys and answers to questions can be collected in seconds; a powerful feedback tool for teachers! There is also the ability to poll students in classrooms, in the school yard or on excusions without the need for a notebook or projector. This part of the ICT classroom technology makes the whole class truly interactive. I look forward to delving deeper here.

We have also been trialing the Nova5000 Student Learning and Data Logger Appliance for the past year in a variety of schools. It is a combination of a touch-screen computer, a network and internet tablet and scientific data logger built into a strong student-proof case. All students mastered its use in minutes and showed an engagement in the variety of tasks that puts the Nova5000's value as an activity

Interactive classroom technologies being used around Australia

based learning tool beyond question. The most common comment given by students in their evaluations is: " When can I use one again?"-

Carramar Primary School, Perth WA

"The children were so enthusiastic to participate with the TurningPoint SRS that this motivated even the weakest students to read and attempt to understand the questions displayed. In 'normal' learning situations it is very difficult to encourage these students to read even simple sight words. This experience highlighted to me the impact this tool can have." *Meagan Passe*, *Year 1 teacher.*

Terry and Christine Hinchcliffe, travelling teachers, WA

Between them, Terry and Christine have notched up an extensive resume working with aboriginal students throughout remote Western Australia using a kit of 24 IR TurningPoint Keypads.

"The aboriginal kids love it. We have developed a series of interactive stories where the kids 'pick their own pathway' by voting for a choice of decisions then hyper linking off to other slides."

Rockingham Senior High School, Rockingham WA

"The TurningPoint Student Response System technology has helped the executive team and staff of the school to collect quality feedback for strategic planning purposes. It also added a new motivation and interest in our PD days, is being introduced into teaching and learning across all learning areas and has further improved the delivery of ICT. Some staff have become much more committed and excited about the use of engaging technologies in their classrooms and are now actively involved in the implementation in their own teaching programs." *Kerry Chipchase*, Principal, Rockingham SHS

The Department of Education and Training Western Australia

"We held four sessions in total at the recent Australian Secondary Principal's conference in Perth and used TurningPoint Keypads in each of these sessions. They enabled us to capture some valuable data that was used to shape the discussions and as a result the sessions were very well received". *Rachelle Lee, Project Leader, Schools Learning with Information Technology(SLICT) and Schools Online Curriculum (SOC) team.*

Mercy College, Mackay QLD

Justin Toon, the IT Manager responsible for implementing Activity Based Learning said, "The NOVA5000 gave us the opportunity to start integrating more ICT into our science curriculum. With the LanSchool class management system the teacher can bring the whole class into focus, by projecting an image of one of the student's experimental results to reinforce a point.

In 2009 the NOVAs will be made readily available in each science lab for group based experimental work or teacher demonstrations. We anticipate an ongoing budget commitment to additional sensors over coming years as we expand our collection."

Cromer Public School, Sydney NSW

Cathy Howe is currently adapting the Primary Connections Module on Electricity and Magnetism for use with the Nova5000 for her Year 5 class.

"The students have completed their cutaway diagrams of a torch on the Nova's - and they loved using them. All students were highly engaged. This week students had to experiment with trying to construct a circuit from wire, batteries and bulbs. My next step is to introduce students to the Nova sensors and allow them to just experiment with the circuits before we start to take serious data.

I plan to introduce students to the Keepad blog and we will start posting entries and I will also include some of the drawings and photos students have done."

For more Information
Contact keepad Interactive on
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